



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-5306; Directorate Identifier 2015-SW-010-AD; Amendment 39-18697; AD 2016-22-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Helicopters Deutschland GmbH Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Airbus Helicopters Deutschland GmbH (Airbus Helicopters) Model MBB-BK 117 C-2 helicopters. This AD requires inspecting each terminal lug and replacing any lug that has discoloration, corrosion, incorrect crimping, or incorrect installation. This AD was prompted by the discovery that terminal lugs with incorrect crimping may have been installed on these helicopters. The actions of this AD are intended to detect incorrectly installed or crimped terminal lugs and prevent contact resistance and reduced gastightness between the wire and terminal lug, subsequent loss of electrical power, and an electrical fire.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5306.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5306; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** George Schwab, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email [george.schwab@faa.gov](mailto:george.schwab@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On April 22, 2016, at 81 FR 23656, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to certain serial-numbered Model MBB-BK 117 C-2 helicopters. The NPRM proposed to require inspecting each terminal lug and replacing any lug that has discoloration, corrosion, incorrect crimping, or incorrect installation. The proposed requirements were intended to detect incorrectly installed or crimped terminal lugs and prevent contact resistance and reduced gastightness between the wire and terminal lug, subsequent loss of electrical power, and an electrical fire.

The NPRM was prompted by AD No. 2015-0044, dated March 13, 2015, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for certain serial-numbered Airbus Helicopters Model MBB-BK117 C-2 helicopters. EASA advises that terminal lugs with incorrect crimping, which can adversely affect contact resistance and gastightness of the contact between the wire and the terminal lug, may have been installed on some helicopters in production. EASA advises that this condition, if not detected and corrected, could lead to the loss of electrical power during flight. Because of this, the EASA AD requires a one-time visual inspection of the terminal lugs and replacement of affected lugs if incorrect crimping is found.

### **Comments**

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (81 FR 23656, April 22, 2016).

**FAA's Determination**

These helicopters have been approved by the aviation authority of Germany and are approved for operation in the United States. Pursuant to our bilateral agreement with Germany, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

**Related Service Information Under 1 CFR part 51**

We reviewed Airbus Helicopters Alert Service Bulletin ASB MBB-BK117 C-2-24A-013, Revision 1, dated November 25, 2014 (ASB). The ASB specifies a visual inspection of the terminal lugs in the distribution and diode boxes for correct crimping, damage, discoloration, corrosion, and correct installation. If any deviation is detected, the terminal lug must be replaced. The ASB also specifies reporting certain information to Airbus Helicopters.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

**Costs of Compliance**

We estimate that this AD affects 183 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour. We estimate about 9 work-hours to inspect the

terminal lugs for a cost of \$765 per helicopter and \$139,995 for the U.S. operator fleet. The cost to replace a lug is minimal.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2016-22-08 **Airbus Helicopters Deutschland GmbH Helicopters:** Amendment 39-18697; Docket No. FAA-2016-5306; Directorate Identifier 2015-SW-010-AD.

#### **(a) Applicability**

This AD applies to Model MBB-BK 117 C-2 helicopters, certificated in any category, with a serial number as listed in the Planning Information, paragraph 1.A.1, of Airbus Helicopters Alert Service Bulletin ASB MBB-BK117 C-2-24A-013, Revision 1,

dated November 25, 2014 (ASB).

**(b) Unsafe Condition**

This AD defines the unsafe condition as a terminal lug with incorrect crimping. This condition could result in contact resistance and reduced gastightness between the wire and terminal lug and a subsequent loss of electrical power, which could cause an electrical fire.

**(c) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

Within 100 hours time-in-service or 12 months, whichever occurs first:

(1) Using a mirror, inspect each terminal lug for discoloration and corrosion, and for correct crimping and correct installation in accordance with the Accomplishment Instructions, Table 1, and the examples in Figure 1 through Figure 5 of the ASB.

(2) If a terminal lug is not correctly crimped or installed or if it has any discoloration or corrosion, replace it before further flight.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: George Schwab, Aviation Safety Engineer, Safety

Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(g) Additional Information**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2015-0044, dated March 13, 2015. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2016-5306.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 2400 Electrical Power System.

**(i) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Alert Service Bulletin ASB MBB-BK117 C-2-24A-013, Revision 1, dated November 25, 2014.

(ii) Reserved.



(3) For Airbus Helicopters service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.airbushelicopters.com/techpub>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on October 18, 2016.

James A. Grigg,

Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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